

CLAIMS

What is claimed is:

5 1. Apparatus in a linear complementary metal-oxide-semiconductor sensor for dark calibration comprising:

 a plurality of exposure control devices, each said exposure control device used for controlling a first electrical access to a photocell and located between said corresponding photocell and in common a

10 voltage line.

 2. The apparatus of claim 1 further comprising:

 a plurality of read-out control devices between said photocells and a transferring bus in common, said read-out control devices used
15 for controlling a second electrical access from said photocells to said transferring bus; and

 a plurality of reset control devices on a plurality of bypass, each said bypass connected to an access between corresponding said photocell and said read-out control device.

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 3. The apparatus of claim 2, wherein said read-out control device is coupled to a corresponding external circuit for purpose of reading-out.

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 4. The apparatus of claim 2, wherein said bypass is further connected a bias voltage supply circuit.

5. The apparatus of claim 1, wherein said exposure control device
is coupled to an external circuit of exposure control.

6. The apparatus of claim 1, wherein said exposure control
5 devices comprises a plurality of on/off switches.

7. The apparatus of claim 1, wherein said photocells comprises a
plurality of photodiodes.

10 8. Apparatus in a linear complementary metal-oxide-
semiconductor sensor of a scanner for dark calibration comprising:

a plurality of exposure control devices, each said exposure
control device used for controlling a first electrical access to a photocell
and located between said corresponding photocell and in common a
15 voltage line;

a plurality of read-out control devices between said photocells
and a transferring bus in common, said read-out control devices used
for controlling a second electrical access from said photocells to said
transferring bus; and

20 a plurality of reset control devices on a plurality of bypass, each
said bypass connected to an access between corresponding said
photocell and said read-out device.

25 9. The apparatus of claim 8, wherein each said read-out control
device is coupled to corresponding external circuit for purpose of
reading-out.

10. The apparatus of claim 8, wherein each said bypass is further connected a bias voltage supply circuit.

5 11. The apparatus of claim 8, wherein said exposure control device is coupled to an external circuit of exposure control.

12. The apparatus of claim 8, wherein each said exposure control device comprises an on/off switch.

10 13. The apparatus of claim 8, wherein each said photocell comprises a photodiode.

15 14. A method for dark calibration of a scanner with a linear sensor, said method comprising:

disabling a plurality of electrical connections between a plurality of corresponding photocells and in common a voltage line in said linear sensor; and

exposing said photocells.

20 15. The method according to claim 14 further comprising:
resetting said photocells by a plurality of bias voltage supports through a plurality of reset control modules;
reading out data from said photocells; and
25 computing a plurality of dark calibration parameters according to said data.

16. The method according to claim 14, wherein disabling step is implemented by a plurality of exposure control devices, and each said exposure control device is corresponding to each said photocell.

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17. The method according to claim 16, wherein in said exposure control devices comprises a plurality of on/off switch devices for controlling said electrical connections.

10 18. The method according to claim 14, wherein in said exposure control devices further have ability to enable said electrical connections.

19. A method for scanning an image by a scanner with a linear sensor, said method comprising:

15 disabling a plurality of electrical connections between a plurality of corresponding photocells and in common a voltage line in said linear sensor;

exposing said photocells;

resetting said photocells by a plurality of bias voltage supports
20 through a plurality of reset control modules;

reading out data from said photocells to get dark image data;

computing a plurality of dark calibration parameters according to said dark image data; and

enabling said electrical connections.

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20. The method according to claim 19, wherein disabling and

enabling steps are implemented by a plurality of on/off switches, and each said on/off switch is corresponding to each said photocell.